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ABSTRACT

This paper describes an attempt to deal with the issue of dissatisfaction in the traditional approach to doing research and evaluation at the Ford Training and Placement Program for professional personnel in the inner-city schools of a large metropolitan area. The paper discusses a) the kinds of questions that need to be examined in this program, b) the rejection of traditional means for examining these questions, and c) the development of alternative research methods. The paper reports on the four phases in which the program was examined in the university and cooperating school settings: Phase I was a knowledge-seeking period; Phase II involved a restructuring of training experiences by using the focused preparation and coordinated preparation of participants; Phase III emphasized the restatement of goals in terms of programmatic objectives; and Phase IV involved testing and reevaluation, if necessary. An alternative research approach is also presented.
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METHODOLOGY: A CRUCIAL ISSUE FOR RESEARCH AND EVALUATION
IN EXPERIMENTAL PROGRAMS

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IN EXPERIMENTAL PROGRAMS

Introduction

In the last ten years, creative ideas in education have been used poorly by experimental programs which suffer from inadequate administration, overemphasis on public relations, and inappropriate research and evaluation. Many innovative Headstart programs fell victim to a multiplicity of administrative styles which implemented the programs in such a manner as to make it impossible for them to fulfill their conceptual promise. Demonstration schools featuring local control by disenfranchised minorities often were praised and publicized nationally before it had been determined whether or not they were accomplishing their goals. A tendency has existed to represent purely personal opinions and biases as if they were the incontrovertibly established findings of scientific research. Consequently, staff energies often were devoted to "show and tell" with little being done to give the parents and students the attention they required. A high mortality rate among innovative programs can be attributed to inappropriate research and evaluation techniques. It is no longer possible for any program working with a predominantly black clientele to use the traditional educational research and evaluation techniques. Rejected is the practice of whitey coming in with a battery of pre-tests, disappearing for ten months, and returning with a battery of post-tests. That rejection is evident among the black graduate students, the black teacher, the black admin-

istrator, the black high school student, and most forcibly among the black parents. But experimental programs must be monitored and documented.

This paper describes an attempt to deal with the issue of dissatisfaction with the traditional approach to doing research and evaluation in a training and placement program for professional personnel in the inner-city schools of a large metropolitan area. It is not a report of findings. Instead, it is a discussion focusing on: 1) the kinds of questions that need to be examined in a program of this kind; 2) the rejection of traditional means for examining these questions; and 3) the development of alternative ways for dealing with the problem. In order to promote clarity throughout the paper, a brief description of the conceptual and operational bases of the program is necessary.

The Program

The Ford Training and Placement Program seeks to train and place professional personnel in so-called inner-city schools--that is, in schools which serve a lower socio-economic group evidencing educational disadvantage. Schools with these characteristics in northern urban centers generally have predominantly black student populations. In the initial conception of the Ford Training and Placement Program, the school was seen as a social system. The effectiveness of universities' current methods of preparing teachers, counselors, and administrators for positions in inner-city schools and the prevailing procedures for placing these personnel in inner-city schools were questioned. The practice

of preparing teachers along grade-line or a subject-matter dimension did not attend to the reality of the school as a social system composed of unique roles. The role of the inner-city teacher is not the same as the role of the suburban teacher, yet universities prepared teachers as if these roles were interchangeable. Further, the concept of the school as a social system suggested that roles in the school never functioned in isolation, but in complementary relationships to the other roles. The work of the teacher was related to that of the counselor, and to that of the administrator, and all were related to the community milieu. Yet the universities prepared teachers, counselors, and administrators in separate curricula though, once in a school, they functioned in these interconnected roles.

Again, the concept of the school as a social system suggested that the greater the mutual understanding and good will among the various educational personnel, the greater the effectiveness and efficiency of the school. Yet, once trained, educational personnel were placed individually rather than as groups with no opportunity to get to know each other before the first day of school. Finally, the conception of the school as a social system suggested that for the school to function properly there must be communication among the trainer (the university), the user (the school), and the client (the community).¹

A program for more efficient preparation and placement of personnel for inner-city schools was projected. The program sought to reduce the isolation of beginning teachers in inner-city schools, and to increase communication among the school, the community, and

the university. The Department of Education and the Graduate School of Education of the University of Chicago obtained the cooperation of the Chicago Board of Education and presented the plan to the Ford Foundation. The Ford Training and Placement Program, envisioned as a six-year program, was begun in January, 1968.

The Ford Training and Placement Program has begun the development of a demonstration training program for the improved preparation of teachers and other professionals for urban schools. The program has the charge of demonstrating and disseminating what has been learned in Chicago to other teacher training institutions and school systems. The program aims at reducing the isolation of teachers and other professional personnel in urban schools by increasing communication within the school and by providing group support for new teachers, administrators, psychologists, social workers, and special service personnel. The cadre device was used to implement the need for focused and coordinated preparation and placement of new personnel in inner-city schools. The notion of a cadre or team has been used to provide interpersonal supports and functional communication between the experienced school staff and the new interns. Through the operation of the cadre, it was hoped that teachers and other professionals, both new and experienced, would benefit from an increased understanding of one another's roles; that problems central to the urban school would be identified and dealt with more effectively by a group than by isolated individuals; and that this, in turn, would lead to improvement in the quality of teaching and learning in urban areas. In addition, the involvement of teachers already in the school with

the training of new teachers in a university setting might have the salutary consequences that innovations from research, customarily reported in the literature, might be communicated and infused directly in the schools themselves. The cadre would provide a direct and open channel from the trainer--the university--to the practitioners--the school staff.

The Ford program is a complex one. Teachers and other personnel are to be trained in six different training programs of the University: programs designed to prepare teachers for secondary schools, teachers for elementary schools, psychological specialists, adult educators, school social workers and school administrators. For each of these persons a three-year sequence is involved: an initial training year, an internship year as a member of a cadre, and a year of bona fide employment in the Chicago public school in which he interned. Three cadres including 27 persons who were in training at the University have completed the second year of this sequence and have taken regular positions in the Chicago schools in September, 1969. Three other cadres including 24 persons in training at the University are currently in their internship year in the Chicago schools.

Research and Evaluation

A basic foundation for intelligent decision-making is a background of information concerning the issue about which the decision is to be made. Any program of activity must be accompanied by theoretical, empirical and evaluative investigations. As practicing educators, we have the responsibility to test solutions to

operating problems; this is the function of evaluation. As professional educators, we have the responsibility to expand the field of knowledge about the educative process; this is the function of research. Research and evaluation, then, are both legitimate and necessary components for inclusion in the Ford Training and Placement Program. However, the real issues are what questions need to be examined, when to examine them, who shall examine them, and how they shall be examined.

Research

As in all experimental programs, there are many issues in the Ford Training and Placement Program that would be both interesting and useful to research. Of course, the question is not what issues most conveniently lend themselves to research, but rather it is a question of 1) establishing priorities for what issues are to be researched and 2) selecting the appropriate time for examining a particular issue. The identification of issues to be researched must follow closely the developmental phase of the project if the findings of research are to influence further development through revision. Research interest in this project is problem-oriented. Research interests necessarily must yield to program demands. Issues must be examined with the full knowledge that need for immediate revision in the program must take priority over the methodological needs of the research plan. First of all, the nature of the research in this setting is restricted by the fact that this is an experimental program which is in the process of developing. The situation must be kept flexible. The need for flexibility in the program restricts the ability of the

researcher to introduce the element of control necessary to research but incompatible with the operation of the program. Second, we are in the process of identifying variables in all phases of the program that should be taken into account as models for selecting, training, and placing professional personnel that are developed for more rigorous testing at a later date. Third, the situation at this juncture further suggests that information must first be gathered that permits a careful description of all phases of the project. Fourth, the research focus is on the functionalities in the project. It would be little more than an exercise in futility to attempt research related to influence on pupil learning at this point. Although it is the pupil in the classroom with whom we are ultimately concerned, it is imprudent to search randomly for impact on pupils. The precise nature of the expected change in pupil behavior has not been made clear. This will evolve soon, but we suspect that it must come in the form of the effect of various teaching methods and the use of different teaching materials as well as the effect of individual teachers on learning outcomes. The use of different methods and materials and more realistic training experiences are appropriate expectations for involvement in the Ford Training and Placement Program.

A brief statement about some of the major aspects of the project that were to be examined appears to be in order before we proceed to discuss the resistance to some of the traditional methods of gathering data.

The General Research Plan

Research efforts are discussed under two broad categories with each major category further broken down into sub-categories. This division is made in order to introduce more clarity in describing the overall effort to gather information pertinent to the intent of the program. The two broad categorizations are:

- 1) research within the university setting and 2) research within the cooperating school setting.

Research within the University setting. A historical account of the project from its genesis through June of 1970 was to be attempted. First, a chronology of events in the history of the project was to be identified and recorded. Second, a summary of important developments with the focus on an historical interpretation would follow. Events were to be examined and interpreted within the context of the societal framework in which this project is imbedded. This phase of the research effort is going fairly well as planned and will not be referred to again in this paper.

A status study was to be undertaken which would provide baseline information about all students in the various training programs in the University which provided interns for the Ford Training and Placement Program. Comparisons could be made with those students selecting the F TPP option. Additionally, this baseline information would be valuable in looking at success or failure in inner-city teaching at a later date. Each student entering the program would also have available to him a profile of himself. Information was to be gathered on such variables as personality, belief systems, attitudes, and also certain demographic information.

These and other variables could comprise the independent variables regressed on a dependent variable (success in teaching in an inner-city school). The strength of each independent variable to predict teaching success could be determined and variables that have little or no predictive value could be deleted. From a problem-oriented point of view, a basis would be provided for selecting trainees for the FTPP. From a theoretical point of view, an explicit model for the selection of inner-city teachers could be developed.

The training experiences that precede the internship year offer another rich source of research. A description of the training experiences along with the strengths that they are designed to develop, followed by an assessment of their worth by the individual intern and his immediate supervisor in the cooperating school, should lead to valuable information in developing a model for training. Those training inputs which are most valuable to teaching in inner-city classrooms can be identified and incorporated into the program of training.

Research within the cooperating school setting. The cross-role cadre is the vehicle through which the trained personnel enter and work in the school. They are joined by professional personnel from the school in a six-week training session during the summer prior to entering the school in the fall. A non-participant observer was to be assigned to each cadre at the beginning of the summer training program and was to be with this cadre throughout the school year. A case study could then be made of each group. The group was to be studied as a social system with attention given

to both the formal and informal structures that evolve with its own particular mode of operation. We were interested in such issues as:

- 1) Mode of operation of each cadre
- 2) The cadre as a work group
- 3) Norms of behavior that arose
- 4) Interaction within the cadre
- 5) Sentiments within the cadre
- 6) Activities within the cadre
- 7) The cadre as a supportive mechanism for members
- 8) The cadre as a socializing influence
- 9) Are all the roles within the cadre functional?
- 10) Is there a sense of shared responsibility within the cadre?
- 11) Is the isolation of new teachers reduced?

Supposedly the presence of a cadre within a given school will have some kind of an impact on that school. Some questions which might be asked are:

- 1) Are barriers constructed as a result of this kind of entrée into a school?
- 2) What kinds of solutions to problems are facilitated primarily through the efforts of cadre members?
- 3) Is there a greater sense of shared responsibility among staff members at the end of the school year?
- 4) Do teachers within a cooperating school look on educational problems from a more comprehensive point of view at the end of the school year?

5) What problems are presented by the presence of white cadre members working together with black teachers and teaching black pupils in basically all-black schools?

6) Are new cadre members absorbed into the staff more efficiently and effectively?

A great deal of information about each cooperating school is needed in order to lend a more meaningful interpretation of data gathered about each cadre. Information about the nature of the school will provide additional insight into the strategy not only for making an effective entrée into a school, but in determining an effective mode of operation for the cadre once the proper entrée is made. Variables that need to be considered in developing a model for placing cadres in inner-city schools can be identified. Conditions in schools which are most conducive to the investigation of relationships among variables can be identified. Information on variables such as climate, leader behavior, morale, and receptivity to change should be gathered.

If teachers who are trained together to teach in a certain location are better equipped to teach inner-city youngsters, if they are subsequently placed together in a specific school, and if they have made the choice to teach in inner-city schools, then there should be less job dissatisfaction among these teachers and consequently less turnover. At the end of the school year (1970) a longitudinal study will be begun related to the turnover of FTPP personnel in inner-city schools as compared to turnover rates among the regularly trained and placed personnel. This will be followed up each year.

After greater clarity in the project has been achieved, it will be in order to look directly at the teaching behavior of FTPP personnel to see how new knowledge and skills are actually being used in the classroom. Ultimately, we must be concerned directly in how this program is improving the learning of pupils. Only after it has been established clearly how the pupils should be affected by the new knowledge and skills which FTPP teachers bring to the inner-city classroom can we begin to evaluate the impact of the experiment on pupils. If we expect a better quality performance on the same task, we can make comparisons on pupil performance. If, however, we expect pupils to be able to perform different and more complex tasks, the expectations need to be spelled out. Appropriate kinds of achievement must be identified before the concept of quality can make a meaningful entry.

Evaluation

The function of evaluation in any role that it may assume in the Ford Training and Placement Program is to provide information that will facilitate decision-making. The goals of evaluation in the program are to raise the important questions which are pertinent to the issue and subsequently attempt to provide information that will help answer them. Evaluation is not a substitute for decision-making. It does, however, provide information that should be weighed when alternative courses of action are being considered and thereby encourages more intelligent decision-making.

Scriven² talks about two approaches to the evaluation of any given entity. One approach to evaluation is the formative or process approach. This type of evaluation is an on-going

process throughout the life of the educational entity that is being evaluated, thereby providing opportunity for adjustment. This feedback information may come in the form of impressionistic data based upon individual or collective observations. It may also come through testing outcomes at interim periods in the life of the entity. Formative evaluation facilitates revision at some point other than at the end of a previously established period. The other approach is through summative evaluation. This type of evaluation is interested in looking at outcomes at the end of a previously determined period of time. Westbury³ describes summative evaluation as the considered appraisal of some whole. In the FTPP summative evaluation is directly concerned with the degree of attainment of programmatic goals.

At this juncture evaluation is of a process nature. A digest of attempts at evaluation for the 1969-70 academic year appears below:

- 1) Summer training program
- 2) Self-evaluation of cadres
- 3) An attempt to establish motivating influences for entering the program and problems encountered to date (interviews)
- 4) Evaluation of special summer programs for placement year cadres
- 5) Impressions of placement year cadre members of FTPP from their present perspective.

As far as summative evaluation goes, we are in the process of restating programmatic goals in behavioral terms so that they may be tested more conveniently. We are casting programmatic goals in

an hierarchical framework, a pyramidal approach to setting up objectives. This approach⁴ presupposes a broad base of rather specific kinds of objectives culminating in an apex of goals stated in rather broad terms. In this approach, one proceeds from generally stated goals to objectives stated in varying degrees of specificity. Consequently, when one thinks about evaluating goal attainment, he can examine those objectives which he has been able to state in behavioral terms. One proceeds in reverse manner to the way in which the objectives were set in that he begins with the measurement of behaviorally stated objectives. The general goal does not lend itself to direct investigation. Achievement of goals is discussed in terms of the degree to which the more specific objectives are met.

Resistance to Research and Evaluation Efforts

The attempt to do research and evaluation in the Ford Training and Placement Program has met with a great deal of resistance. A rather hard line against research and evaluation has been adopted by a number of the participants in the program. This unwillingness to report has varied from refusal to cooperate in research and evaluation efforts in any way in one cadre to a considerable degree of participation in another with the third group being somewhere in between the two extremes.

The question of "What is the nature of this resistance?", needs to be examined. The need for research and evaluation has a "commonplace obviousness" (to use Westbury's term)⁵ about it. Scriven has pointed out that "one can be against evaluation only

if one can show that it is improper to seek an answer to questions about the merit of educational instruments, which would involve showing that there are no legitimate roles in which these questions can be raised, an extraordinary claim.⁶ The reasons for resistance, then, necessarily must be explained in other ways.

The traditional method of carrying on research and evaluation activities is no longer viewed as adequate by a large segment of the professional community. The researcher comes in, introduces himself, gathers the data, promises feedback on the findings when the data are analyzed, and the "subjects" never see him again. They may be able to read about themselves in some book or article and sometimes without understanding what is said. As a result, the gulf between research and practice is made wider. The researcher writes for other researchers to read. Research must be made the business of other people in addition to the researcher.

The matter of being able to trust the people carrying on the research effort is an important variable to be considered. A question uppermost in the minds of the people who are being asked to reveal information is whether the researcher is really looking for an answer to the question he has posed. Respondents often fear this information may be misused. The researcher frequently is viewed as uncommitted to adding information of any real value to the practitioner. The motives of the researcher are often suspect and in many cases these suspicions are bona fide. All people in the research community have become stereotyped as a result of the "hit and run" tactics of many researchers.

People may exhibit an unwillingness to report because they feel that they are being viewed as objects. Often a deep resentment develops against research efforts if people feel they are being used in some manner or another. They resent the idea of being manipulated by others.

They also may feel that they have no stake in the research effort. The research may be viewed as irrelevant for them; the findings may be thought to make little or no difference to them as practitioners. They may feel that the decision-makers will not be influenced by the findings. The stake they have in the research or evaluation being done may be obscure and no reason is made apparent to them as to why they should participate. Consequently, any time that is spent on research and evaluation enjoys a rather low position in their order of priority.

The white researcher often is viewed as suspect in the black community. His understanding of the problems of the black person may be perceived as inadequate. The very fact that he is there is viewed with alarm and many times with good reason. Too many white researchers have "used" the black community as a source of information for their own purposes. It takes a considerable length of time to convince the more powerful and influential people of the black community that the white researcher's motives are proper and acceptable.

Another problem is the high degree of anxiety that evaluation usually provokes. Although each day is filled with one judgment after another being made, many people will resist any attempt at systematic evaluation, even when they are doing the

evaluating themselves. As a profession, education has successfully resisted evaluation. As a result, we have disguised our successes as well as our failures. If we are to survive and grow as a profession, we can no longer afford to be immune to research and evaluation. There is growing pressure from inside the profession to be able to articulate our successes and failures to others. Much of this internal pressure, unfortunately, has resulted from pressure outside the profession. It has descended upon us from many sources but is nonetheless real. Some has come from funding agencies which are demanding some degree of accountability, a legitimate demand. Some of it has come from business concerns which are now turning their technological know-how loose on the schools. Other pressures have come from individuals anxious to make a name for themselves and find the schools an easy and interesting target. A great deal more is coming from the countless number of interested people in the communities across the nation who are demanding more accountability from our schools than in past years but, at the same time, are willing to let the schools provide the means.

Reluctance to participate in research and evaluation in the Ford Training and Placement Program also has varied with the method of data collection being employed. The participants in the program have resisted almost totally the more classical methods of the field of educational psychology and the quantitative orientation of contemporary sociology. For the time being, we have been forced to abandon the structured, disguised instruments used in educational psychology and contemporary sociology. The use of the

daily or weekly log has met with only a minimum of success. The straightforward questionnaire with more openended questions and also the interview are apparently not as distasteful to most of the participants in the program. The observational method of collecting data was resisted in the beginning, but is now serving as the main source of information in two of the cadres. The rest of this paper is a discussion of the observational method in data gathering.

An Alternative

Although the original research and evaluation plan proposed that considerable use be made of the observation technique of data collection, it has since become the major technique now being employed in the FTPP. One cadre permitted a research person to be present after the first month of school. Another researcher began meeting with another cadre in December of 1969. This is supplemented by information gathered through questionnaires and interviews. It is now possible to follow the further development of these groups as social systems through a period of time. The focal concern of this section is to examine a few of the major assets and limitations of the structured observation technique.⁷

Much of the data with which social science deals may be obtained by direct observation. Direct observation may allow the researcher to study behavior with a minimum of alternation in the social situation.⁸ The greatest advantage of the technique is probably in the recording of behavior as it is enacted. To quote from Selltiz:

All too many research techniques depend entirely on people's retrospective or anticipatory reports of their behavior . . . In contrast observational techniques yield data that pertain directly to typical behavioral situations . . .⁹

Observation permits the gathering of data even if the subjects are unwilling to report.¹⁰ Less cooperation is required of the subject than with most other techniques. People may not have the time or may not be so inclined to be interviewed or to fill out a questionnaire, but will not object to the presence of an observer. Although all resistance to research cannot be overcome in this manner, it is less demanding of active cooperation.

Observation is flexible and readily acceptable. In the FTPP observations are being made in natural surroundings. This methodology can be adapted easily to the laboratory. It may be used to develop hypotheses, test hypotheses, or for descriptive purposes only. We are attempting to both describe and explore in the FTPP. Hopefully we will gain insights which can later be explored by other techniques.

Another advantage of observation is its capacity to be utilized to assess behavior through time. Whyte illustrates this aspect of observation:

I now came to realize that time itself was one of the key elements in my study. I was observing, describing, and analyzing groups as they evolved and changed through time. It seemed to me that I could explain much more effectively the behavior of men when I observed them over time than would have been the case if I had got them at one point in time. In other words, I was taking a moving picture instead of a still photograph.¹¹

Becker¹² points out that observation is of more value in understanding a particular organization than demonstrating relationships between abstractly defined variables. It is observation that

allows the field study to obtain information on interrelations in group structure and social interaction as on-going processes. It permits an in-depth study of the group.

The observation technique also has serious limitations. It is not always possible to predict the occurrence of an event and the observer may not be present to observe it. We are hopeful that this void may be filled by our use of the interview or questionnaire. Furthermore, all events do not lend themselves to observation. It is certainly not the most economical procedure for gathering or analyzing data.

There are procedural issues in observation studies which are crucial but this is no less true of any procedure or method being utilized. There are four general questions which must be answered by an investigator.

(1) What should be observed? (2) How should observations be recorded? (3) What procedures should be used to try to assure the accuracy of observation? (4) What relationship should exist between the observer and the observed, and how can such a relationship be established?¹³

All of the above issues vary for each study and must be answered for that particular setting. It cannot be the function of this paper to describe the procedures employed in the Ford Training and Placement Program.

A Final Word

The present plan for conducting research and evaluation in the Ford Training and Placement Program can be conceptualized along the following lines. The plan embraces both scope and sequence and is divided into four phases. Although events in the four phases may be occurring simultaneously, they are conceptually independent.

Phase one is a knowledge-seeking period. We have employed primarily perception data in our analyses to date but are in the process of gathering natural data through observation. We are attempting to answer some of the questions alluded to earlier in this paper. Hopefully this will include also the self-evaluation of each cadre. This knowledge is providing a base for developing models for selection of participants, training and placement which will be tested more rigorously in the future.

Phase two involves a restructuring of training experiences by revising the focused preparation and coordinated preparation of participants referred to in Getzels' original paper.¹⁴ The program of training for the summer of 1970 should reflect some change as a result of the findings of research and evaluation.

Phase three places emphasis on the restatement of goals in terms of programmatic objectives. They are being cast in behavioral terms and will lend themselves to testing in the future. They are also undergoing needed revision. Specific statements regarding pupil growth should be forthcoming in the future.

Phase four represents the period in which more rigorous testing and evaluation can occur. The proper framework for this phase must first be built if truly meaningful and valuable findings are to emerge.

Resistance to research and evaluation is to be anticipated as a fact of life for those currently engaged in educational research. We recognize that this plan will not eliminate all resistance to research and evaluation in the FTPP. However, it is hoped that this plan for conducting research and evaluation will allow the resistance to be reduced to a level which will permit necessary

data collection. If the innovative ideas of the Ford Training and Placement Program are to avoid the fate of many other good ideas in education, careful attention must be given to the planning and implementation of a scientifically sound but functional research and evaluation plan.

Footnotes

1. J.W. Getzels, "Education for the Inner City: A Practical Proposal by an Impractical Theorist," The School Review, Vol. 75, No. 3 (1967).
2. M. Scriven, "The Methodology of Evaluation," in Perspectives on Curriculum Evaluation, ed. by R.W. Tyler, R.M. Gagne, and M. Scriven, AERA Monograph Series on Curriculum Evaluation (Chicago: Rand McNally and Company, 1967), pp. 50-51.
3. I. Westbury, "Curriculum Evaluation," Review of Educational Research (in press).
4. C.H. Granger, "The Hierarchy of Objectives," Harvard Business Review, Vol. 42, No. 3 (1964).
5. Westbury, op. cit.
6. Scriven, op. cit., p. 41.
7. Observations which are structured required that the observer identify certain behaviors he assumes will be present in the situation being observed. An observer could participate actively in a group to a large or a small degree; he may observe without being a part of the group, but have his presence not known to those observed, or he may observe, and have his presence known to the group. This last alternative Henry calls "naturalistic observation" in contrast to participant observation. To quote Henry, "The naturalistic study of behavior is the scientific study of human beings in their natural surroundings instead of in laboratories, direct observation of human behavior instead of merely asking questions about it." J. Henry, Collected Manuscripts (n.d.). (Mimeographed.)
8. L. Smith and P.M. Keith, Social Psychological Aspects of School Building Design, U.S. Office of Education Project Report No. 5-233 (Washington, D.C.: Government Printing Office, 1967), p. 446.

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13. Sellitz, et al., op. cit., pp. 209-210.
14. Getzels, op. cit.